

## Swath/Windrow Grazing: An Alternative Livestock Feeding Technique

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### Introduction:

Lowering production costs through efficient management techniques is of interest to most ranch operations. One of the largest expenses on our ranches is that of winter feeds. In the northern U.S. and Canada, storing forages for feeding during the non-growing season has been a practice for over 100 years. The costs of swathing, baling, stacking, storing, and feeding baled hay can be reduced by as much as 75% by allowing the livestock to graze windrows, which eliminates the baling, stacking, storing and feeding of a typical operation. So why isn't every rancher making use of this technique? There is some risk.

There is definitely risk involved with swath grazing, but the perceived risk maybe higher than it really is. Regardless of how ranchers are supplying winter feed to their livestock, unless they can rely on open grazing there may be an opportunity for them to supply part of their feed by grazing swaths. Ranchers from Nebraska to Northern Alberta are using this method to cut costs from their winter feeding operation. The largest use of this method is being done with annual crops such as oats and barley. A few are swathing their perennial hay crops and leaving them in the windrow for winter grazing by their livestock. Research in Canada shows now difference between body condition of cows grazing windrows compared to those being fed a standard winter ration in confinement. Canadian ranchers successfully windrow late seeded oats or barley hay and graze them under nearly all types of climatic conditions.

To assist ranchers in evaluating the decision to implement a swath grazing practice on their operation there are some guidelines to follow and some disadvantages to be aware of. This practice has been used during open winters and in snow depths of over 2 feet with no apparent problems.

One of the first concerns always expressed by ranchers is their cows' ability to forage through snow. Cows will not paw through snow like horses or elk for standing forage, but will push snow aside with their heads and noses once a feed source is exposed. Only under extreme conditions, such as hard crusted snow or icing, is there a problem. Under these conditions cow's noses can become sore and they stop foraging. In situations where this has occurred ranchers have overcome this by driving a tractor down the side of the windrow breaking the crust.

### Suggested Guidelines:

Cutting forage: The forage crop, whether annual or perennial, should be cut in the fall when nights are cooler. Usually this will mean in late August or September depending on individual climatic conditions.

Plant annual forages, barley and oats, late in the spring or early summer so they will be in the early dough stages in September for windrowing.

Perennial forages should be grazed evenly and fairly heavy in the early spring so the re-growth is in a higher quality vegetative state in the fall for windrowing. It is advisable not to use the same field of perennial forage every year.

Windrows should be no more than 4 feet wide, but dense and high will help. Most producers have swathers with headers 12 or 14 feet. At least two of these windrows should be raked together. It may be necessary to rake more than 2 windrows together in hay that is producing less than 1 ½ tons per acre. Raking windrows together will increase their density, which will help keep the majority of the forage off the ground even under heavy snow loads. Hay that comes in contact with the ground will decay more quickly and be harder for the livestock to consume. Tall windrows also have the tops exposed making them more accessible to livestock. The exposed areas act as solar collectors, which melts snow off a larger portion of the windrows. There is a limit to the size of the windrows. They can be made too big, which will encourage animals to bed on them and waste more forage.

Raking windrows together should be done while the hay is still moist and not dried out. Raking right behind the swather or mower is best. It also helps build a tighter compact windrow that is less susceptible to wind damage.

Cross fencing with electric fence should be done to control the time and amounts of forage animals have available. Electric fence should be placed at right angles to the windrows and when the fence is moved the butt end of the open windrow should be left in the new area available. This leaves some hay exposed giving the cattle a starting point where they will continue to graze up the windrow.

In order to minimize waste, ideally the fence should be moved every day allowing only enough grazing area for the one-day's feed supply. If that is not possible the fence should be moved at least every 2 to 3 days. If more time is allowed, cattle tend to over eat at the beginning of a grazing period and be overly hungry before the fence is moved. A Nebraska study where fences were moved only 10 to 14 days percentage waste was as high as 26%. Where cattle were limited to one days feed and then the fences moved, waste has been as lower than 5%.

#### Advantages:

Reduced labor requirements. One ranch in Utah cut their labor force in half by switching to this type of haying and feeding technique.

Reduced costs for haying and feeding. Cost estimates:

Swathing \$8 to \$12/acre

Raking \$3 to \$4/acre

Baling \$8 to \$10/acre (est. yield 1 ½ tons/ac)

Hauling & stacking \$8 to \$10/acre

Feeding \$5 to \$10/ton

This system eliminates baling, hauling, stacking, and feeding, which reduces costs by a minimum of \$16/acre plus the cost of feeding. Additional costs for electric fence and labor to move it have to be added back in, which is estimated to be less than \$2/acre. Another hidden reduced cost is machinery wear. Balers, tractors, hauling and feeding equipment will last longer when handling less hay.

Weather at haying time becomes less of a concern. Summer rain showers reduce hay quality of hay waiting to be baled where fall cut hay can be windrowed prior to dry down.

Manure handling is eliminated for the time livestock are grazing swaths. Concentration of livestock for any length of time is minimized. This reduces the amount of manure that needs to be hauled or spread in the spring from concentrated winter feeding areas.

#### Disadvantages:

Extreme weather events can cause problems and supplemental feeding may still be necessary for short periods of time.

Wildlife such as deer and elk are a potential problem from walking on ungrazed swaths, which seals the snow and creates a crust making cattle grazing more difficult. However, documentation as to the total effect of wildlife is limited. Several ranchers who deal with wildlife populations on a regular basis, report no additional problems, but a survey of Canadian producers indicated 23 percent of them had wildlife problems. In Canada they also report deer and elk prefer oat swaths over barley swaths.

#### Summary:

Swath grazing is a viable option for many producers. It offers the potential to add value to a livestock enterprise through reducing feed and feeding costs as well as manure handling costs. As with any new practice swath or windrow grazing takes planning. Topography of grazing area, water sources, shelter, fencing, and class of livestock all have to be carefully considered. Implementing this grazing practice will require careful monitoring of livestock to ensure your livestock enterprise goals are being met.

#### References:

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